

REMARKS

Claims 1, 2, 4, and 6-21 have been amended. Claims 1-21 remain pending in the application. Reconsideration is respectfully requested in light of the following remarks.

Claim Objections

The Examiner objected to claims 7-10, 13-16 and 18-21 for being improper dependent claims. The claims have been amended to recite the correct dependencies.

Section 101 Rejection:

The Office Action rejected claims 1-5 and 11 under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

In regard to claims 1-5, Applicants respectfully traverse the § 101 rejection of these claims. However, to expedite prosecution, Applicants have amended claim 1 to recite one or more host machines configured to implement ~~comprising~~ *a plurality of instances of an application server; and one or more client computer systems configured to implement one or more clients of the application server.* Therefore, for at least the reasons presented above, Applicants respectfully request removal of the § 101 rejection of claims 1-5.

In regard to claim 11, the elements of these claims are all expressed as means for performing a specified function. Applicant reminds the Examiner that under 35 U.S.C. § 112, paragraph 6:

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of underlying structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

Thus, by statutory definition, a means claim specifically includes structure or

material and cannot be construed as software *per se*. Therefore, for at least the reasons presented above, the § 101 rejection of claim 11 is improper and removal thereof is respectfully requested.

Section 112, Second Paragraph, Rejection:

The Office Action rejected claims 2, 4, 5, 7, 9, 10, 13, 15, 16, 18, 20 and 21 under 35 U.S.C. § 112, second paragraph as indefinite.

In regard to claims 2, 7, 13, and 18, the Examiner rejected these claims for use of the acronym RMI-IIOP, and asserts that it is “unclear what this means”. Applicants respectfully traverse this rejection. However, to expedite prosecution, these claims have been amended to recite RMI-IIOP (Remote Method Invocation - Internet Inter-ORB Protocol). Therefore, for at least the reasons presented above, the removal of the § 112 rejection of claims 2, 7, 13, and 18 is respectfully requested.

In regard to claims 5, 10, 16, and 21, the Examiner asserts that *select a different one of the plurality of client-side ORBs according to the load balancing scheme in response to another request to access the application server* is “unclear whether each ORB can only be used once (i.e., the system cannot choose the same ORB twice in a row, or the system can never choose an ORB again?)” Applicants respectfully traverse this rejection. Nothing in the claims language would lead one of skill in the art to conclude that “each ORB can only be used once”, or that “the system cannot choose the same ORB twice in a row”, or that “the system can never choose an ORB again”. Furthermore, Applicants note that the claims recite *selecting a different one of the plurality of client-side ORBs according to a load balancing scheme in response to another request to access the application server*. One of skill in the art would recognize that selecting different ORBs from among a plurality of orbs according to a load balancing scheme does not imply anything like what the Examiner asserts, e.g. that “each ORB can only be used once”. Therefore, for at least the reasons presented above, the removal of the § 112 rejection of claims 5, 10, 16, and 21 is respectfully requested.

In regard to claims 4, 9, 15, and 20, the Examiner rejected these claims for use of the trademark/tradename “JNDI”. Applicants respectfully traverse this rejection. However, to expedite prosecution, these claims have been amended to recite *wherein the Context Factory class is a factory class of a naming and directory interface that provides naming and directory functionality to applications written in Java programming language*. Therefore, for at least the reasons presented above, the removal of the § 112 rejection of claims 4, 9, 15, and 20 is respectfully requested.

Section 103(a) Rejection:

The Office Action rejected claims 1, 5, 6, 10-12, 16, 17 and 21 under 35 U.S.C. § 103(a) as being unpatentable over Gigliotti, et al. (U.S. Patent 6,393,458) (hereinafter “Gigliotti”). Applicants respectfully traverse this rejection for at least the following reasons.

In regard to claim 1, contrary to the Examiner’s assertion, Gigliotti does not teach or suggest *one or more client computer systems configured to implement one or more clients of the application server, wherein each client is configured to: create a plurality of client-side Object Request Brokers (ORBs), wherein each client-side ORB is coupled to a server-side ORB of a different one of the plurality of application server instances*. The Examiner cites Gigliotti, col. 4 lines 30-31, col. 5 lines 53-56, and FIG. 3 in support of this assertion, and states “wherein each client instance is connected to a server host using ORB.” However, Gigliotti, in the cited selections or elsewhere, does not teach or suggest *each client creating a plurality of client-side Object Request Brokers (ORBs), wherein each client-side ORB is coupled to a server-side ORB of a different one of the plurality of application server instances*. Col. 4, lines 30-34 of Gigliotti reads:

As used herein, a client object may be an ORB compliant object (such as a CORBA object) and have an associated Graphical User Interface (“GUI”) to allow a system user to interact with the software to cause the client object to initiate an event.

Col. 5 lines 53-56 of Gigliotti reads:

That is, the Event Subscriber need not be located on the same machine as the subscribing object, but only needs to be connected to objects running on a server host through an ORB.

The above citations do not teach or suggest *each client creating a plurality of client-side Object Request Brokers (ORBs), wherein each client-side ORB is coupled to a server-side ORB of a different one of the plurality of application server instances.* FIG. 3 of Gigliotti shows a plurality of “client objects” coupled to a plurality of “Server hosts”, but does not show a plurality of client-side ORBs for each client object, wherein each client-side ORB for each client is coupled to a server-side ORB of a different one of the plurality of application server instances. In contrast, Gigliotti only teaches that each ‘client object’ may be an ORB. In the description of FIG. 3, beginning at col. 6, line 3, Gigliotti does not teach or suggest anything like *each client creating a plurality of client-side Object Request Brokers (ORBs), wherein each client-side ORB is coupled to a server-side ORB of a different one of the plurality of application server instances.*

In further regard to claim 1, contrary to the Examiner’s assertion, Gigliotti does not teach or suggest wherein each client is configured to select one of the plurality of client-side ORBs according to a load balancing scheme in response to a request to access the application server. The Examiner cites Gigliotti, col. 6, lines 37-39, in support of this assertion, and states “wherein a load balancer determines a balanced distribution”. However, nowhere does Gigliotti teach or suggest each client selecting one of the plurality of client-side ORBs according to a load balancing scheme in response to a request to access the application server. Nowhere does Gigliotti teach or suggest each client creating a plurality of client-side ORBs on a client system, and nowhere does Gigliotti teach or suggest each client selecting one of the [created] plurality of client-side ORBs according to a load balancing scheme.

A careful review of the Gigliotti reference reveals that Gigliotti’s system is clearly and distinctly different than what is recited in claim 1. In the Summary section (col.2,

line 55-col. 3, line 26), Gigliotti describes a “method, system and computer program product for load balancing in a distributed computing environment.” Gigliotti discloses that the system balances the distribution of event messages in a distributed object computing environment. Gigliotti’s system includes at least one client publishing an event containing information and a plurality of server classes residing on one or more server hosts, at least one server class subscribing to the event published by the client, and a plurality of load balancers.

Gigliotti’s system provides for the registering of a plurality of server classes as subscribers for selected events. For each subscribing server class, the system also provides for the registering of one or more server hosts as capable of running an instance of the class. The client then publishes an event which is received by only one of the plurality of load balancers.

Gigliotti’s system then provides for the selection of a server host by one of the load balancers for each subscribing server class registered to subscribe to the event by the load balancer based on load parameters calculated and the registration of hosts capable of running an instance of the subscribing server classes. The selected server host identity for each subscribing server class is then coupled to the event for further publication of the event into the distributed object computing environment by the load balancer. The event is then received by a plurality of event subscribers, each event subscriber reviewing the server host identity information for a server host affiliated with that event subscribers. The event subscribers pass the event on to the identified subscribing class for each class identified for processing on a server host affiliated with the event subscriber. At least one instance of each subscribing class for the published event then performs logical operations in accordance with the event.

Nowhere in the above, or elsewhere, does Gigliotti describe anything like what is recited in claim 1. Nowhere does Gigliotti teach or suggest each client on a client computer system creating a plurality of client-side ORBs, wherein each client-side ORB is coupled to a server-side ORB of a different one of the plurality of application server

instances, and nowhere does Gigliotti teach or suggest each client selecting one of the [created] plurality of client-side ORBs according to a load balancing scheme.

In Gigliotti's system "[t]he client publishes an event which is received by only one of the plurality of load balancers." The load balancer would then select a server instance from among a plurality of server instances. In other words, Gigliotti's system using ORBs, a server-side ORB would be selected by a load balancer in response to an event generated by a client. However, even if a "client" in Gigliotti's system has more than one client-side ORB, Gigliotti's system does not select from among a plurality of client-side ORBs to do load balancing. In Gigliotti's system, instead, a load balancer selects among a plurality of server-side ORBs corresponding to the server instances. The selected server-side ORB would then communicate with the client-side ORB associated with the client.

The distinctions between Gigliotti and claim 1 of the instant application is clear. Gigliotti does not teach or suggest each client creating a plurality of client-side Object Request Brokers (ORBs), wherein each client-side ORB is coupled to a server-side ORB of a different one of the plurality of application server instances, and selecting one of the plurality of client-side ORBs according to a load balancing scheme in response to a request to access the application server. Instead, Gigliotti teaches a client generating an event, a load balancer receiving the event, and in response to the event, the load balancer selecting from among a plurality of server-side ORBs.

Thus, for at least the reasons presented above, the rejection of claim 1 is not supported by the cited art and removal thereof is respectfully requested. Similar remarks as those above regarding claim 1 apply to claims 6, 11, 12, and 17.

The Office Action rejected claims 2-4, 7-9, 13-15 and 18-20 as being unpatentable over Gigliotti in view of Applicant's Admitted Prior Art (hereinafter "AAPA"). As the rejection of the independent claims have been shown to be

unsupported by the cited art, no further comments in regard to these claims is necessary at this time.

CONCLUSION

Applicants submit the application is in condition for allowance, and an early notice to that effect is requested.

If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5681-71800/RCK.

Respectfully submitted,

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